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**Remarks**

Claims 13-18 and 29-34 are pending. Claims 13, 29, 31 and 33 are amended herein. Support for the amendment of claims 13 and 29 is found at p. 3, lines 15-20. Claim 31 is amended to correct a typographical error. Claim 33 is amended to properly depend from claim 32. Support is found in the claims. No new matter is submitted by way of these amendments. A version showing changes made is attached for the Examiner's convenience. In addition, a clean version of the currently pending claims is appended hereto as Appendix A for the Examiner's convenience.

**Claim Rejections under 35 U.S.C. § 112, second paragraph**

Claim 33 was rejected under 35 U.S.C. § 112, second paragraph, for lack of antecedent basis for the phrase "said at least one alignment means". In response, Applicants note that the claim has been amended to depend from claim 32 where there is sufficient antecedent basis for this phrase. Applicants respectfully request the Examiner to withdraw the rejection.

**Claim Rejections under 35 U.S.C. § 102**

Claims 13, 15-18, 29, 30 and 32-34 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Whitehead et al. (U.S.P.N. 4,879,097, "Whitehead".)

Whitehead is directed to a recording apparatus that includes a holder for a reaction vessel that is sealed to prevent entry of stray light. The Examiner suggests that the Whitehead

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apparatus anticipates the apparatus claimed because, according to the Examiner, the apparatus includes a base plate which holds a microtiter plate, a lid including component ports for immobilizing array components, a sealant between the base and the lid, male/female alignment means and at least one fluid handling device. Applicants respectfully traverse.

As the Examiner is aware, “[i]t is axiomatic that for prior art to anticipate under § 102 it has to meet every element of the claimed invention.” *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367 (Fed. Cir. 1986). The law is well established that in order to anticipate a claim, the prior art must disclose “each and every element” of the claimed invention. *SSIH Equipment S.A. v. U.S. Inc. Int’l. Trade Commission*, 218 USPQ 678, 688 (Fed. Cir. 1983). As stated by the Federal Circuit in *In re Bond*, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990), “[f]or a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference.” See also *Glaverbel Societe Anonyme v. Northlake Marketing & Supply, Inc.*, 33 USPQ2d 1496 (Fed. Cir. 1995).

Claims 13 and 29 as amended are directed to hybridization chambers that include a base with a base cavity, a lid and a sealant between the base plate and the lid forming an airtight seal. This description of the sealant also is found at p. 3, lines 15-20.

In contrast, there is no disclosure in Whitehead of a sealant that forms an airtight seal between a lid and baseplate of the apparatus. The Examiner points to elements **21** of figure 1 as the anticipating element. However, the specification describes this element as a “pair of ribs” (see col. 4, lines 65-66 of Whitehead). There is no disclosure that such “ribs” form an airtight

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seal. In fact, there is no disclosure that the “ribs” form a seal at all. Accordingly, Applicants submit that each claim element is not taught in Whitehead. Applicants respectfully request the Examiner to withdraw the rejection.

**Claim Rejections under 35 U.S.C. § 103**

Claims 14 and 31 are rejected under 35 U.S.C. § 103 as being unpatentable over Whitehead et al (US 4,879,097 (Whitehead)) in view of Kolehmainen et al (US 4,349,510 (Kolehmainen)), Kubisiak (US 5,144,136 (Kubisiak)) or Hendrix (US 4,707,454 (Hendrix)).

The Examiner’s position appears to be that Whitehead discloses an apparatus with a lid, base plate and sealant as described in the claims and that the secondary references all teach fiber optic bundles. The Examiner suggests that it would have been obvious for one of skill in the art to employ a fiber optic array in the lid of Whitehead. Applicants respectfully traverse.

Whitehead is described above and teaches a recording apparatus that includes a holder for a reaction vessel that is sealed to prevent entry of stray light.

Kolehmainen relates to automatic transportation, processing and measurement of chemiluminescence and bioluminescence in discrete samples contained in depressions on a light reflecting tape. Emitted light from samples in the depressions of the reflecting tape is conducted through bundles of optical fibers to photomultiplier tubes.

Kubisiak teaches a device for simultaneously measuring particle and quantum radiation. The device utilizes light conductors. However, there is no mention in Kubisiak of fiber optic

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bundles. That is, while light conductors are depicted in the specification and figures, there is no teaching that these light conductors are fiber optic bundles.

Hendrix teaches fluorescent chlorophyll reagents and devices for their detection. Fiber bundles emit light into samples. However, the bundles are not themselves detectors. Rather, detection is accomplished by a cable that carries a voltage proportional to the luminous flux impinging on the element of the photodetector array to which the particular conductor is connected (see col. 26, line 65 to col. 27, line 3 and Figure 1 of Hendrix).

In contrast, claims 14 and 31 are directed to a hybridization chamber that includes a base plane, a lid, a sealant between the lid and baseplate forming an airtight seal. In claim 14, the lid is configured to hold a fiber optic bundle. In claim 31, the lid further comprises a fiber optic bundle.

When rejecting claims under 35 U.S.C. §103, the Examiner bears the burden of establishing a *prima facie* case of obviousness. See, e.g., *In re Bell* 26 USPQ2d 1529 (Fed. Cir. 1993); M.P.E.P. Section 2142. To establish a *prima facie* case, three basic criteria must be met: (1) the prior art, either alone or in combination, must teach or suggest every limitation of the rejected claims; (2) the prior art must provide one of ordinary skill with a suggestion or motivation to modify or combine the teachings of the references relied upon by the Examiner to arrive at the claimed invention; and (3) the prior art must provide one of ordinary skill with a reasonable expectation of success.

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Here, Applicants submit that the Examiner has failed to provide any motivation for the combination of the references. The Examiner suggests that motivation is found in the “known and expected result of providing an alternative means recognized in the art to detect chemiluminescent reactions”. However, Applicants respectfully submit that this is insufficient motivation. That is, the Examiner has pointed to no teaching in the prior that would have motivated one of skill in the art to combine the references. Applicants draw the Examiner’s attention to In re Lee, 61 USPQ2d 1430 (CA FC 2002). In this case, the Examiner rejected the claims under 35 U.S.C. §103 and stated that the required motivation “would be that the automatic demonstration mode is user friendly and it functions as a tutorial”. Id at 1435. The Federal Circuit stated that “deficiencies of the cited references cannot be remedied by the Board’s general conclusions about what is “basic knowledge” or “common sense””. The Board’s finding must extend to all material facts and must be documented on the record, lest the “haze of so-called expertise” acquire insulation from accountability. “Common knowledge ” and “common sense”, even if assumed to derived from the agency’s expertise, do not substitute for authority when the law requires authority.” (citing In re Zurko, 59 USPQ2d 1693 (CA FC 2001); see Lee, 1434-1435).

In the present rejection, the Examiner has failed to point to anything specific in the cited references that would suggest the motivation to combine the references of Whitehead with any of the secondary references. While the Examiner suggests motivation is found in the “known and expected result of providing an alternative means recognized in the art to detect

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chemiluminescent reactions”, Applicants submit that this is a “common sense ” argument, impermissible under In re Lee.

In addition, Applicants submit that even assuming, *arguendo*, that there was motivation to combine the references, not all claim elements are present in the prior art. Claim 14 depends from claim 13 which includes the limitation of a sealant between the lid and the base plate to form an airtight seal. Claim 31 depends from claim 29, which also includes such a limitation. Applicants submit that none of the cited references teach such a limitation. That is, none of the references teach or suggest a sealant between a lid and baseplate forming an airtight seal. Accordingly, Applicants submit that the combination of the references fails to teach all of the cited claim elements.

Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established. Applicants respectfully request the Examiner to withdraw the rejection.

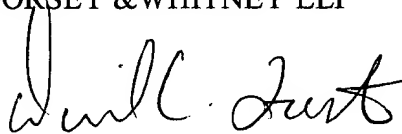
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CONCLUSION

Applicants respectfully request that the rejections be withdrawn, and submit that the application is now in condition for allowance. Early notification of such is solicited. If, upon review, the Examiner feels there are additional outstanding issues, the Examiner is invited to call the undersigned.

Respectfully submitted,

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**Marked Up Version**

13. (Amended) A hybridization chamber comprising:

- a) a base plate wherein a base cavity for holding a first array component is formed in said base plate;
- b) a lid comprising at least one component port for immobilizing a second array component;
- c) a sealant between said base plate and said lid forming an airtight seal.

29. (Twice Amended) A hybridization chamber comprising:

- a) a base plate comprising a base cavity;
- b) a first array component in said base cavity;
- b) a lid comprising at least a first component port, wherein said component port comprises a second array component;
- c) a sealant between said base plate and said lid forming an airtight seal..

31. (Twice Amended) The chamber according to claim 29, wherein said second array component is a fiber optic [bunch] bundle.

33. (Amended) The chamber according to claim [29] 32, wherein said at least one alignment feature is a male and female fitting.